

# 2019 Fire and Emergency Services Study for Holmdel Township, New Jersey



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## Section 1 - Organization and Purpose of a Fire Department

There is one element of our nation's infrastructure which my studies have identified as being common among all segments of society in the United States. My research indicates that the fire service in our nation has long stood as an important and well-respected component in our nation's infrastructure. This has been an element of our society for well over 350 years. Many of our greatest tragedies have revolved around the devastation caused by uncontrolled fire within our nation's cities and towns. I believe that it is essential for all of us who participate in the delivery of municipal fire and emergency medical services to remember that people within every community stand exposed to a wide range of risks. It is our job to insure that they remain as safe as possible. The citizens living in **Holmdel Township** should expect no less. That is why the fire department in your community is so essential to the preservation of life, property, and commerce within the township.

Local citizens, who may not even know the individual members of the fire department, look to them as their guardians against the sudden and unexpected emergencies which occur from time to time. Fire department's need to look at the citizens they protect as the customers for whom their specialized services are tailored. Local fire agencies must consider the fulfillment of their customer's expectations as their major reason for existence. All too often, the customers who provide the fiscal support for their community fail to step forward to serve and therefore form no part of the community fire protection equation. This is a sad fact of municipal fire protection in the 21<sup>st</sup> Century. The concept of citizens stepping forward to protect the safety of their fellow community members dates back to the days before our nation was born.

Unfortunately, the way in which modern society has evolved has created a culture which is not totally familiar with the historic tradition of voluntary service to one's community. People are often not aware of the important part that they can play in their community by volunteering to serve in their local fire department.

It is for that reason that the dedicated services which are currently being provided by the devoted volunteer staff of the Holmdel Fire Department should be nurtured and preserved if at all possible.

Let me recommend that the township government, and the fire company, make a concerted effort in the next year to locate and identify people who might be candidates to join the Holmdel Fire Company #Two. If this is successful, it may forestall the need to hire a career staff. If that effort does not succeed, let me suggest that it would then be appropriate and proper for the Holmdel Township Committee to consider the creation of a career staff to assist the existing volunteer staff in the delivery of services.

Let me now ask an important question. What is a fire department? "...Simply stated, (it) is a group of fire officers, firefighters, and emergency responders working together to achieve a common objective(s)." (Barr and Eversole, p. 864) Protecting citizens in a community is the primary objective toward which a fire department should strive. Your fire department has accepted both the legal and moral responsibility for providing fire protection and rescue services within the borders of your township. It continues to be the duty of your department to provide a level of fire protection and emergency service response commensurate with the codes, standards and accepted professional practices in the field of municipal fire protection. It is critical for the local government in your township to recognize the job you are doing and to financially support your ongoing fire department operations to the maximum extent allowed by the laws of the State of New Jersey.

Let me assure you that based upon my interviews with your members, I am pleased to report that your department has willingly accepted both the legal and moral responsibility to provide fire protection and rescue services to the community. They are obliged to perform to the best of their ability, within the fiscal constraints approved by the government of Holmdel Township. I would suggest that it will be progressively more difficult in the years ahead. Evolving technologies and new regulations will continue to drive up the cost of doing business. Difficulty in finding volunteer members is also a

problem you definitely face. Further, there is always a number of government services competing for the limited fiscal resources of government.

It has been my privilege to study the operations of your fire department. It was also my privilege to observe the shared bonds of friendship and camaraderie which exist within your fire department. "A fire department shall have programs, procedures, and organizational rules and regulations for preventing the outbreak of fires in the community and for minimizing the danger to persons and damage to property caused by fires that do occur. The fire department also shall carryout other compatible emergency services as mandated" (NFPA 1201, p.1201-5).

Society has long recognized the need to provide for the suppression of fire. Over time, the public has come to expect this service to be provided by some level of government. In your case, this arm of government is the Holmdel Fire Company #2. In order for us to better understand as to what a fire department is, and what it should be doing, we must turn to the nationally recognized codes and standards that provide guidance for our efforts.

These speak to the types of service a modern fire department should provide. According to the National Fire Protection Association, a fire department should provide such services as:

- A. **Fire Suppression Services:** The classic fire department task of responding to and extinguishing fires.
- B. **Fire Prevention and Inspection Programs:** The best way to correct fire safety mistakes which might lead to a fire is to engineer them out of a building before it is built; and inspect buildings to insure they are being maintained in a fire-safe manner.
- C. **Public Fire Safety Education:** Programs must be delivered to the various user populations in a community which will equip these people with the essential life-safety skills to avoid exposure to a fire, improve their chances of

escaping from a fire, or minimize the consequences of their exposure to fire.

- D. Emergency Medical Services:** Over the past decades, fire departments all across the United States have come to be recognized as the service best positioned to provide emergency medical services to their communities. An adequate capability must be maintained to allow instantaneous delivery of this critical service on a 24-hour-per-day basis.
- E. General Emergency Response Capability:** A capability must be provided to assist a community during times of natural disaster or imminent emergency. The fire department has historically been a pillar of support in this important area.
- F. Community Consultation:** Fire departments should provide a means of consulting with local people and groups who have fire-related problems, questions, and requirements. People look to the fire service to answer their questions, handle their problems, and allay their fears.

Based upon my interviews with members of your department, each of these operational areas are to some extent currently provided by the fire department and the local government in Holmdel Township. The actual delivery of EMS comes from the Holmdel First Aid Squad, which receives operational support from your fire department. You need to maintain the central focus for operational guidance between and among the other fire departments which respond on a daily basis with your fire department. The fire department has developed a focus which will allow them to fulfill or assist in fulfilling all of the operational areas necessary for meeting the community's fire and emergency service protection needs. Chief Farrell has reached out to his mutual and automatic aid partners to increase their participation in the protection of Holmdel Township. The department's participation in the regional mutual aid program is a critical element in their service delivery capability. I have seen this at work in many places. You need to continue your focus and maintaining a well-trained fire department family. The department I reviewed was truly operating as a family.

Let me suggest that your fire department needs to develop a mission statement, a vision statement which serves to guide your organization into the future in a unified manner. Once a fire department understands the actual reasons for its existence, it can then lay out solid, goal-oriented plans for future success. This is what you need to do. The information gathered during my visits with the chief, as supplemented by my interviews with a number of members, have convinced my associate and I that you have some serious staffing issues as you deliver a critical emergency service to Holmdel Township. Here is an example of what I am suggesting to you.

#### Mission Statement

The Holmdel Fire Company #Two was formed in 2006 to provide a critical service to their community. The members of this organization will strive to provide effective fire protection, and such other services as are found necessary to the citizens of their community. They will endeavor to afford taxpayers, residents and visitors a quality service at all times and in all areas of the Holmdel Township, New Jersey.

During the course of the interview process, a number of individuals suggested that they would like to remain an all-volunteer fire department. The results of my visits and my interview has identified a serious staffing issue; one which would make the maintenance of a volunteer force difficult. Very few members of the Holmdel Fire Company #2 are actually Holmdel residents. Given the cost of the available housing in Holmdel, this is easy to understand. Further the median income levels tell me a story which I have seen before in a number of different communities. Higher income residents willing volunteer for such activities as youth soccer, baseball, etc. However, given the dirty, dangerous, and time consuming nature of volunteer firefighting, there is not a similar calling to step forward and join the fire department. A career firefighting force is never an easy recommendation to make, but it might be a necessary task for government to consider if their efforts to increase the size of the volunteer force are not successful.

During my interviews I saw a minimum of differing views within your fire department. The key to continued success in this area is to maintain an open and sincere line of communications between and among the officers and members of your fire department and the township committee. The manner in which leaders and followers interact is always a critical element in the future success of any organization. Chief Farrell and his officers have devoted a great deal of time to creating a tightly-knot, family-like operation. They are to be commended for their efforts.

Finally, let me remind all parties to this fire protection equation that I am only able to offer to you advice and guidance. You are free to accept, reject, or modify my opinions as you see fit. Experience has shown me that some of my best results have come from those situations where my clients have taken my suggestions and worked with them.

### **Section 3 - Population and Demographics**

My experience within the fire and emergency services dates back more than 50 years. It is my privilege to have served in military, volunteer, and career organizations in a variety of operational leadership, management, and administrative areas. It is also my good fortune to have served as a municipal fire consultant dating back to the late 1970's. Over the years I have come to understand that one of the most important elements which must be reviewed as a part of developing a community fire protection plan involves the creation of what has come to be known as "the community footprint" (Barr and Eversole, p. 1019). This requires those individuals performing the study to review such elements of the community as:

- Demographics
- Economics
- Environment
- Weather
- Culture

It has been my experience that the use of demographic data is one important way of describing the stage and lifestyle of a given population. When you understand the population and community, then the challenges to public safety, in particular, fire protection, can be framed within the proper perspective. This is what I have endeavored to do over the past several months. As a result of my research, I feel confident in making the statements contained within this section.

Holmdel Township is governed by a Mayor and council form of government. The council appoints one of its own as Mayor and another as the Deputy Mayor. As of 2018 the Mayor is Tom Critelli, and the Deputy Mayor is Gregory Buontempo the Council Persons are Eric Hinds, Michael Nikolis, and Rocco Pascucci.

Holmdel Township is a township in Monmouth County, New Jersey, United States. As of the 2010 United States Census, the township's population was 16,773, reflecting an increase of 992 (+6.3%) from the 15,781 counted in the 2000 Census, which had in turn increased by 4,249 (+36.8%) from the 11,532 counted in the 1990 Census.

Holmdel Township was formed by an act of the New Jersey Legislature on February 23, 1857, from portions of Raritan Township (now Hazlet). The origin of the township's name is unclear, with some sources indicating that it was named for the Holmes family, who were early settlers of the area, while others point to Dutch language words *Holm* and *Del*, meaning "pleasant valley".

Holmdel is located 15 miles (24 km) west of the Jersey Shore. The township is notable, among other things, for its historical and present connection to Bell Labs. Important evidence for the Big Bang was discovered at a Bell Labs facility in Holmdel by Arno Penzias and Robert Wilson, both of whom won the Nobel Prize in Physics for their work here. In addition, former Secretary of Energy Steven Chu earned a Nobel Prize in Physics for his work on laser cooling in Holmdel.

Holmdel's picturesque beauty, proximity to New York City and main highways, award-winning public schools, large homes, rich history, PNC Arts Center, and the presence of many high paying jobs within commuting distance led the township to be ranked the #1 "Six-Figure Town" by Money magazine and CNN for 2009.

According to the United States Census Bureau, the township has a total area of 18.115 square miles (46.916 km<sup>2</sup>), including 17.896 square miles (46.35 km<sup>2</sup>) of land and 0.219 square miles (0.566 km<sup>2</sup>) of water (1.21%). Holmdel Township is located roughly 35 miles (56 km) south of Manhattan. Crawford Hill, located at (40.3903863,-74.1840322), is Monmouth County's highest point, standing 391 feet (119 m) above sea level. The top portion of the hill is owned by Alcatel Lucent and houses a research laboratory of Bell Laboratories.

The township borders the Monmouth County communities of Aberdeen Township, Colts Neck Township, Hazlet Township, Marlboro Township and Middletown Township. Unincorporated communities, localities and place names located partially or completely within the township include: Beers, Centerville, Crawford Corners, Everett, Morrell's Corner and Pleasant Valley Crossroads.

As of the 2010 census, the township was 77.5% Non-Hispanic White, .09% Black or African American, 0% Native American, 19.2% Asian, and 1.8% were two or more races. 3.7% of the population were of Hispanic or Latino ancestry. There were 5,584 households, 90.7% lived in households, out of which 40.8% had children under the age of 18 living with them, 82.67% were married couples living together, 6.9% had a female householder with no husband present, and 17.4% were non-families. The average household size was 2.92 and the average family size was 3.29.

In the township the age of the population was spread out, with 7.89% under the age of 19, 4.3% from 19 to 24, 17.8% from 25 to 44, 33.9% from 45 to 64, and 16.3% who were 65 years of age or older. The median age was 45.1 years. The population is 51.7% female and 48.3% male.

The median income for a household in the township was \$147,276, and the median income for a family was \$166,046. The mean income for households was \$198,843 and the mean income for families was \$220,100.

Holmdel Township's growth has been attributed to its proximity to the New York City Metropolitan area. This thought is borne out to some extent by the mean travel distance to work of 38.2 minutes as reported by the United States Census Bureau.

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Holmdel Township Percentage of Residents by Age

Under 19	19-24	25-44	45-64	65 and Over
7.89	4.3	33.9	33.9	16.3

There is a large population in the 45-64 year age group. This is an age group that is not normally relied upon for fire department members. These numbers tell me that there exists a diminished number of younger community members upon whom the fire department can count for future growth. The number of residents who are in the key recruiting age of 18-25 is not that great at approximately twelve (12) percent.

My research and experience have shown that younger people are the life blood of the volunteer fire service. It has been my experience that as the average age of community residents increases, the number of people willing to step forward and serve as firefighters decreases. This trend is strikingly similar to that being experienced by volunteer fire departments in other areas of the country. It has also been my personal and consulting experience that as the income level of a community increases, the number of residents stepping forward to serve as fire department or emergency medical service volunteers decreases.

The best candidates for volunteer firefighter membership generally experience their most active years during their 20s and 30s. It has been my personal experience that fire departments should work to recruit members between the ages of 18-25 in order to allow for a long and productive career. Junior firefighter's programs are an important source of new members. This is the case in Holmdel where the chief reports great success with their Fire Cadet program. Despite this success, there is an issue which must be considered. A number of these young people will leave for college. You must consider how many will relocate at a distance when they have completed their education. Economic conditions and employment opportunities need to be considered if you wish to bring these people back to the township. However the economics of your community would seem to be strongly biased against the future entry of township residents into your fire department ranks. I base this upon my years of research and experience. The fire company has indicated to me that many of the younger fire company members leave the area when they complete their college education.

When a community matures, and its population mix changes to include newer residents who are not familiar with the nature and volunteer traditions of the community, its ability to recruit and retain volunteer staff begins to diminish. This does not happen on any given day. It is a long-term evolutionary process. The same situation occurs when the population is increased by the inward migration of people unfamiliar with the need for volunteers to staff the fire department. Many times these new folks commute great distances to work. In your community, the mean travel commuting time to work is 32.6 minutes

My experience with volunteer fire departments has shown that many two-income families exist in society today. Given the economic needs of providing for their families, many people are no longer able to spare sufficient time to commit to an active position in a volunteer fire department. This precludes people who might otherwise be predisposed to volunteer from committing time to the fire department. Let me note that heads of households and their spouses will be required to spend a great deal of time working to support the needs of those families, as well as providing appropriate family activity support. This trend tends to support my position that a future diminution of available volunteers may be expected. In your case another issue has emerged based upon the age of your department.

With a median age of 41.9 years of age, the township does not have a good base of people to recruit from. While the department is doing a tremendous job for their community at the present time, steps must be taken to gain new members in order to insure that your tradition of volunteer fire protection might remain. This has been the way it has worked in each of the communities I have studied over the past 37 years. When people devote more time to employment issues, it allows for fewer time for family pursuits. This in turn equates to less time available for volunteer activities, particularly the labor- and time-intensive kind of volunteering that fire department membership represents. Such does not seem to be the case with the local first aid squad.

The future of your fire department will be strongly influenced by the way in which your community continues to develop. According to my research and the anecdotal information I garnered from my interviews in Holmdel Township, the existing and future population that can reasonably be expected to evolve may not be of a type and kind that favor an enlightened populace willing to become active volunteer members of the fire department. This fact will at some point in the future lead your community in the direction of some form of combination of full-time career fire department as supplemented by a staff of volunteers. I say this because of the number of people who are available to respond on a regular basis. I want to suggest that you begin to prepare for it now. Form a committee and start to develop how you want to see it develop. Let me suggest that you get out in front of this issue and work to control it. It will stand a greater chance of success if you hire your own people to staff the career positions.

It is critical for the Holmdel Fire Company #Two to closely monitor its personnel response levels. Any indication of a diminished response in staffing and increased time to

respond must serve as a cause for concern. I have included a series of recommendations to bolster your volunteer ranks in the recommendations section at the end of this report. The key to success involves an enlightened and informed fire department working to move into the future as the facts of their situation dictate.

Given that many people in your community have no personal experience in or with the world of volunteer emergency services, if the various community groups in town are to be brought into the fire service, they must be approached and recruited on a one-on-one basis. However, based upon my review of the nature of your community and its population, I would suggest that you should plan on developing a career department, supplemented by a volunteer support staff, as soon as possible.

## **Section 2 – Fire Department Organizational Culture**

We have long held the belief that an outside fire protection observer needs to study the organizational culture of a fire department, and the ways in which it goes about getting its job done. A number of areas should be reviewed and assessed in order to discover how an organization functions. We looked at the following areas:

1. Structure
2. Process
3. Behavior

It has been long been my experience that an improved understanding of how an organization works comes about through an analysis of its organizational structure, its day-to-day operations, and the ways in which its members interact within the organizational setting. In this case, we were able to uncover a number of challenges through a review of anecdotal information. Many stem from the manner in which the fire company came into existence back in 2006. A number of individuals mentioned how their origins came from being ‘rescue’ members within the Holmdel First Aid Squad. A number of members attended the Monmouth County Fire Academy on their own, because they wanted to become firefighter/rescue members of the old Holmdel Fire Company #One. For whatever reason, they discovered that they were not wanted by the members of that fire organization. Out of frustration a number of these members came together to form the Holmdel Fire Company #Two.

Based upon the interviews which I conducted, I have come to better understand how the Holmdel Fire Company #Two operates. They are a member with an interactive role within a regional mutual aid network. It would appear that Station 18 and its operational partners have a good working relationship with its automatic aid and mutual aid partners. Overall, they appear to work fairly well together.

## Structure

The **Holmdel Fire Company #Two** is a community-oriented fire suppression organization. They provide fire protection services for, and operate under the fiscal oversight of, Holmdel Township. The fire department operates from two fire stations, one located on Centerville Road near Route 35 and another station located in the area of the public works complex on Crawford's Corner Road. All operations are under the control of the Fire Chief, who is supported by a staff of subordinate volunteer officers. It should be noted that neither of their two stations were designed to be a fully operational fire station.

The manner in which this fire company came into being is quite interesting indeed. My interviews with the members spoke of problems fitting into the delivery system which existed prior to their founding in 2006. The people that I interviewed spoke to the fact that at that time they felt that they existed in a middle ground between the first aid squad and the old Holmdel Fire Company #One.

The following guidelines exist to help the department conduct its daily operations:

1. Holmdel Fire Company #Two By-Laws

Let me suggest that the absence of a proper set of operational guidelines makes it difficult for the department to operate during a wide variety of operational situations and circumstances. My interviews indicated that the SOP's should be created in order to serve as the basis for all operations. This will allow for an effective, consistent approach to all operational situations. I have included a recommended set of Standard Operating Guidelines in the appendix to this report.

It is a recognized good practice of management to bring people together periodically. This occurs in your organization during the various company interactions. By interacting frequently, members can have greater impact on fire company operations, which can lead to more consensus-based decisions on organizational operations. You are working to do this.

Being the leader in a volunteer organization is difficult. While a leader is charged with a great deal of responsibility to get the job done, in a volunteer setting it is critical to solicit and accept the input of the members. This can occur formally at fire department meetings, or informally in a wide variety of local settings. But occur it must. It would appear, however, that a great deal is heaped upon the shoulders of the fire chief in this setting. Let me suggest that a better sharing of duties be undertaken by both the chief and the members of the officer's staff. I want to commend the efforts of Chief David Farrell to you. He and his staff have created a solid, family-style organization. This is an important part of maintaining an effective volunteer force.

Effort needs to go into developing the actual goals and objectives by which this organization can prosper. The concept of a stronger, more focused fire department can then be implemented through the use of a well-vetted series of procedural documents. Let me suggest that an organizational planning retreat be scheduled which will bring together as many members of the volunteer staff as possible. At this event, the members present can review their mission statement and ensure that it spells out why they exist and what they need to do. They could then develop the goals, objectives, and tasks that would allow them to create an operational plan that would bring their mission statement to life. A wide range of personalities from all levels of the organization should be called upon to participate.

The inclusion of all views, however divergent, is critical to the "buying-in" process. I am suggesting that a department-wide organizational development meeting be held to further develop your fire department. We urge the use of a neutral, outside facilitator in this process. Given the nature of the membership in the Holmdel Fire Company #Two, this should not be difficult. Great things can happen when you choose to ask people what they think.

Our interviews identified a range of feelings about those who are in leadership roles. It was my observation that many members of the organization do not believe their input is really desired and appreciated. The leadership of the organization needs to work hard to get the team concept instituted and embraced by its members.

## Organizational Processes

Every organization uses two basic processes to process the inputs of people, dollars, and time into the outputs of service delivery:

1. Communications
2. Decision making

**Communications.** A problem we have encountered in a number of past consulting assignments has involved people thinking they are communicating ideas, when they really are not. As a matter of fact, we have encountered this in our own lives on a number of occasions. I do not see this problem is at work in your fire department.

A similar, but slightly different problem comes when leaders are communicating frequently, but not in a manner that can be easily understood. This can occur because the wrong language is used, or inappropriate modes are used for the people concerned. We did not observe this aspect of the communications problem at work in Holmdel Township.

Our review of the communications model in your fire and rescue department revealed the following:

1. The leaders need to portray to the members their concepts for departmental direction.
2. Information needs to be transmitted in writing.
3. Communications should occur during meetings.
4. Communications should occur between meetings.
5. Non-emergency organizational decisions need to be made in a more public manner during fire company meetings.
6. The message should be created that there is one team operating together at all times.

We were able to review the relevant forms of communication within the fire department. I am of the opinion that a great effort has been made to get the word out within the fire department. People have to know what is expected of them. That is what being in an organization requires. It is good right now. It can be made better. Work at the retreat should be devoted to

this. In this way, a good organization can be made better. A district newsletter for your members could begin to address this issue.

People have to be educated as to the need to blend their own personal needs with the requirements of the organization. This is the old theory of coming together for the greater good. This is a trait no longer taught in our schools or in society in general. Conversely, the organization must be ever aware of its requirement to understand the needs of its people. An organization can improve its performance by creating as great an overlap of individual and organizational needs as it can.

**Decision making.** A decision is an event that requires the choice of a given course of action. One can make decisions in a positive, affirmative manner. They can also occur by default, in the absence of a definite choice. Either way, something will happen.

A fire department has a better chance of having influence over the outcomes from a decision if it acts in a rational, deliberate manner. We wish to assist in improving the operation, through the organization-wide use of effective decision making. To assist the Holmdel Fire Company #Two in developing an understanding of the decision-making process, it is important for me to stress that a decision is rarely a single event.

Decisions usually proceed in a chain-like manner, wherein one choice follows another. Things usually evolve from what was, through what is, and on to what will be. There are three distinct decision-making chains:

1. Problem solving
2. Opportunity exploiting
3. Project management

Problem-solving chains involve specific deviations from expected results. They require that an existing problem be solved. They usually are found in the form of “what is and what should be.”

Opportunity exploiting chains are quite creative in nature. They might be stated in the form of “what is and what could be.”

Project-management decisions are usually found in the day-to-day operations of an organization. They are routine in nature and best made once, with the establishment of operational guidelines. In this way, there is a uniformity of organizational operations.

Our review of the **Holmdel Fire Company #Two** revealed a decision-making system that is distinctly pyramidal in nature. Currently there is no set of **Standard Operating Procedures (SOP's)** in existence which could guide operations. Given the varying focus of supervision in a volunteer scenario, people in the organization should be trained to make decisions. They should then be empowered to do just this. But these things should be done within the framework of a strong set of **Standard Operating Procedures**. For that reason I have developed a set of SOP's for the Holmdel Fire Company #Two.

People must know what is expected of them in the situations they will normally encounter. And their training should equip them to make decisions under abnormal circumstances. These are the people who will accomplish the organizational goals with a minimum of injury and chaos.

During our discussions, a theory began to evolve as to how the decision-making process might be enhanced. People not only should be trained in how to make decisions, but they should have a written set of policy guidelines that could cover the following:

1. Decisions for use in routine situations
2. Decisions for use in extraordinary situations
3. The procedures for developing solutions to extraordinary situations
4. The types of decisions that can be made by the varying levels in the rank structure of the organization
5. Those situations in which a decision needs to be moved up the chain of command

Decision making seems to be working well, but with just a few modifications, it can be improved.

## **Organizational Behavior**

One of the primary problems facing an organization involves its understanding of how its members interact with it. Each person who dons the uniform of the **Holmdel Fire Company #Two** is a unique entity. They arrive pre-formed, and with a great deal of personnel baggage. They are a product of:

1. Their home environment.
2. Their community environment.
3. Their experiences within whatever educational system they attended.
4. Their life as they have lived it prior to entering your fire department.

It is important for your organization to understand the relationship that exists between the needs of the members and the needs of the organization. Many years ago, management expert **Chris Argyris** suggested the most productive organizations were those in which the needs of the individual were met by the requirements of the organization. He spoke of an organization in which people worked hard because they were laboring on behalf of their own values, as espoused by the organization.

This requires us to ask why people join the fire company. Usually, the list of what people say runs something like this. They wanted

1. "To serve the community."
2. "Excitement."
3. "To be a firefighter when they were little."

Very few people would say they joined so they could be up at all hours doing a dirty and dangerous job, for little or no self-gain, or to spend countless hours in fund-raising endeavors. So

it must be the psychological intangibles that keep the troops coming back. Many people mentioned that it was the camaraderie they felt with their fellow members that kept them coming back for more. This is a common statement of satisfaction which I have seen in many fire departments which I have studied.

We suggest you work to **uncover these intangibles** during your daily interactions. Why should we, as consultants, guess at their motives, when they can be ascertained by you in person? Further, in those cases in which people leave the organization, they should be queried as to the reasons for their departure. By exploring the reasons why people leave, the organization can work to eliminate negative detractors and improve recruiting and retention.

It is our suggestion that all of these motives be explored as part of the **retreat exercise** we suggested. If you can tie into the psychological reasons for joining, and extrapolate them toward reasons for remaining, success in organizational retention may well be the final result.

In closing, we remind the **Holmdel Fire Company #Two** that no organization exists in a vacuum. The fire company is a subset of the local government and the local government is a subset of the community at-large. They must continue their willingness to marshal the resources to support all three aspects of their organization:

1. Structure
2. Process
3. Behavior

## **Section 4 – The Holmdel Fire Company #Two**

The **Holmdel Fire Company #Two** is a volunteer organization providing fire and emergency response services to Holmdel Township. There are currently approximately 35 active volunteer members, ranging in experience from recruits to veterans with more than four decades of service. It is anticipated that approximately one to three people may leave during the next two to five years. It is also anticipated that a like number of personnel will be recruited during the same time frame.

You currently have an Insurance Services Office (ISO) rating grade of 6/6X. This speaks is not uncommon for volunteer fire departments. Your rating is based upon a number factors which are contained within the ISO Grading Schedule.

- Emergency Communications accounts for 10 percent of the total classification
- A review of the fire department accounts for 50 percent of the total classification
- A review of the water supply accounts for 10 percent of the total classification

Let me begin by stating that the water supply is provided by the New Jersey American Water Company. Thus it is beyond your control. Here is what the ISO report states:

- Credit for supply system Earned Credit 27.24 Credit Available 30
- Credit for hydrants Earned Credits 3 Credit Available 3
- Credit for Inspection and flow testing Earned Credits 6.21 Credit Available 7

Your score of 36.45 points when 40 are available indicates a strong positive report.

Since your police department dispatches the fire department your Emergency Communications credit is totally under your control. Here is what the ISO says about your emergency communications.

- Credit for emergency reporting Earned Credits 0.30 Available Credits 3

- Credit for telecommunications    Earned Credits 1.20    Available Credits 4
- Credit for dispatch circuits        Earned Credits 1.5     Available Credits 3

Your score of 3 points when 10 are available indicates an area where improvements can be made to improve your ISO rating. A review of the ISO report indicates that you can gain a great deal of credit by implements a Wireless Phase 1 E9-1-1 reporting system when 25 points are available under that section, you earned none. Adding a computer-aided dispatch system could move you from 0.00 available credits toward the 15 credits which are available.

The area where you can pick up the most credits is your fire department. You had a great many low credits under the Fire Department section of the ISO report.

- Credits for Engine Companies    Earned Credits 4.07    Available Credits 6
- Credits for Reserve Pumpers    Earned Credits 0.28    Available Credits 0.50
- Credits for Pump Capacity        Earned Credits 3        Available Credits 3
- Credits for Ladder Service        Earned Credits 2.06    Available Credits 4
- Credits for Reserve Ladder      Earned Credits 0.0     Available Credits 0.50  
and Service Trucks
- Credits for Deployment Analysis Earned Credits 2.23    Available Credits 10
- Credits for Company Personnel   Earned Credits 3.40    Available Credits 15
- Credits for Training                Earned Credits 1.17    Available Credits 9
- Credits for Operational Considerations Earned Credits 1.00 Available Credits 2

Your rating of 17.21 earned credits is not very good when compared to the available credits which are 50. You can improve your credit totals in the following ways:

- More personnel
- Improve training
- Improve the apparatus fleet

All of these issues will require cooperation between local government and the fire

Company. You must work hard to insure that improve this rating. It would allow your citizens and the businesses in your community to enjoy lower insurance rates. It is possible that money spent by the township to improve the dispatch system and fire department could help to get a lower rating next time ISO visits your community.

Let me stress that the fire company is most fortunate to have their fuel, insurance, and fire hydrants rentals come from Holmdel Township. The annual fire department budgets are listed as:

- 2015 \$47,000
- 2016 \$47,000
- 2017 \$60,000

Holmdel Township is a community in which most residents work out of town. The U.S. Census Bureau (2016) indicated that the mean travel time to work is 32.6 minutes. This places many residents at places too far away from the community to respond to emergencies in a timely fashion. Anecdotal information gained from our interviews indicates that many people commute to places that are further away than 38.2 minutes. It was stated that many people commute by train to New York City. Others commute to Northern New Jersey a number of other places. This does not appear to be out of line with other departments we have studied.

Many times, new members are not aware of the demands that fire department membership will make on their time. They become members without fully understanding the demands that will be made on them. This leads to people leaving after only a few months or years of service. This, too, is similar to other departments I have studied. In addition many people must work more than two jobs to afford the cost of living in your community. Situations in which both spouse work outside of the home have become the norm in our area today. This is not limited to Holmdel Township.

The manner in which the fire company was formed has led to a number of issues. The original members who formed the Holmdel Township Fire Company #Two were rescue

members of the Holmdel First Aid Squad. A number of them wanted to become firefighters. To that end they enrolled in and completed the Firefighter I program at the Monmouth County Fire Academy in Howell Township. Upon receiving their state-approved Firefighter I credentials, they approached the former Holmdel Fire Company #One. They were not welcomed as members. This led a number of them to strike out on their own and create the Holmdel Fire Company #Two. I am well aware of the differences which took place between these two fire companies. At some point, the Holmdel Fire Company #One was decertified and went out of business. Since that point, Holmdel Fire Company #Two has provided fire and rescue services for the township as a whole. This has proven difficult given their location at the northern end of Holmdel Township.

One of the issues facing the Holmdel Fire Company #Two is the fact that most of the current members live in other communities which border the Township. This leads to an increase in turnout time owing to the amount of travel time it takes many people to reach the station. Further, it is rare that the apparatus located at the Crawford's Corner station respond. Members would have to by-pass the Centerville Road station in order to reach the Crawford's Corner station. Anecdotally, it was reported to me that responses to calls for assistance in certain areas of the township can greatly exceed the recommended on scene and operating time of 12 minutes recommended by the National Fire Protection Association (NFPA) Standard 1720 for the response of volunteer fire departments. The only way to address this excessive time situation is to build a new station more centrally located in the township and staff it with a force of 5-6 career, paid firefighters who can respond immediately upon being called.

### **Station Locations**

There are two fire stations. One is located on Centerville Road near N.J. State Route 35. The other is located on Crawford's Corner Road near the public works complex. It should be noted here that neither station is equipped to be a main fire station. There are a number of issues with these two structures. A list of the issues includes:

- a. No meeting room
- b. No dedicated officer's room with secure storage for records

- c. No dedicated kitchen space
- d. Lack of storage space
- e. Turnout gear is stored in the attic of the station on Centerville Road
- f. Hose is stored outside in a shed behind the Centerville Road station
- g. This leads to the leftover water in the hoses freezing during times of cold weather

It is for these reasons that I recommend that Holmdel Township explore the development of a station more centrally located within the township.

### **Dispatch Services**

The fire department is dispatched by the Holmdel Township Police Dispatch system. This is a trained and equipped, full-time operation. It is also the hub for all mutual aid operations as they have been determined by the Holmdel Fire Company #Two Chief. It should be noted that not a great deal of credit was assigned to the dispatch system by the Insurance Services Office (ISO) in their grading schedule summary for the township. A total 3 out a possible 10 points was assigned within the report.

It is this centralized dispatch service that we feel should serve as the basis for a new approach to the service delivery deployment of local and mutual aid forces. I am suggesting that fire protection services for the Township could be maximized by a series of written formal automatic aid agreements calling for the joint dispatch of surrounding fire companies based on incident location. This would require some work, but the benefits would be good for all involved. At this time Chief Farrell is working to firm up the mutual aid and automatic aid response relationships with surrounding communities.

The updated responses should be reduced to writing in the form of a Box Alarm Response System provides automatic, cross-border response from adjoining communities. By using this regional approach to service delivery, the protective force is maximized. Remember, however, that this is a two-way street: You will have to give assistance in order to receive it.

## **Training**

Training for the Holmdel Fire Company #Two is provided primarily through company drills. I have reviewed the fire company training records and see a need to insure that all members, officers included, continue to increase their emphasis on training. There is a need to get to the point where all officers and members have the necessary training to perform their operational duties. Progress has been made, but more must be done. I have spoken to Chief Farrell regarding this matter.

During my discussions with the fire chief, it was noted that he works to encourage attendance at the weekly drills. This is important. In addition, training sessions are often scheduled at the Monmouth County Fire Academy and the Middletown Township Fire Training Center off of Normandy Road.

Let me suggest that fire company members be given the opportunity, on a limited basis, to attend major training conferences e.g., Fire Department Instructor's Conference, Firehouse Expo, and Fire Rescue International. It is our professional opinion that these opportunities should be increased. There are educational opportunities for all operational and administrative levels within the fire service.

## **Apparatus Fleet**

The Holmdel Fire Company #Two operates a fleet that includes:

- Three pumper apparatus
- One aerial/pumper unit

## **Personnel Response**

A review of the fire company response records indicated the majority of the emergency responses occur during the daytime period. This has remained constant over the past several years. This is the way it has been for fire departments which I have studied during my years as a

consultant. This creates a problem because the bulk of the activities occur during the time frame when staffing levels may be problematic. Your use of automatic aid is extremely important in handling operations during the day.

Our review of personnel response by time of day indicated that, in a majority of instances, insufficient people were available to conduct a firefighting operation. Our concern would be in the amount of time needed to deploy, or, in other words, how quickly the people can be on scene in sufficient numbers to conduct an effective firefighting operation. It should always be recognized that staffing response levels, which are reviewed, are gathered and recorded at the end of an incident. A number of individuals with whom I spoke indicated that there is a growing problem with diminished volunteer member response during the daytime periods on Saturday and Sunday. This is not uncommon and in fact I see it in my own volunteer fire department.

We have ascertained, anecdotally, that most volunteer fire departments are hard-pressed to put the requisite number of people on scene in a timely fashion. This would be the 12 firefighting personnel, operating two engine companies, and an aerial truck company, under the command of a designated incident commander (chief officer), as specified in the **NFPA Fire Protection Handbook**, 20<sup>th</sup> ed. This total is now increased by the addition of a safety officer and a Rapid Intervention Team of 5 or 6 personnel.

It is our opinion this is an area that should be closely monitored. In a review of your responses to emergency calls, I discovered that the following were the response totals over the past few years:

<b>2015</b>	397
<b>2016</b>	406
<b>2017</b>	407

I reviewed the response records for 2017 to get an idea of the range of numbers on who is responding to calls during the usual 24-hour period of coverage.

Number of people responding 0701-1700 hrs. in 2017

0-5	6-11	12-14	15-19	20-24	25+
88	139	4	1	-	1

Number of people responding 1701-2400 hrs. in 2017

0-5	6-11	12-14	15-19	20-24	25+
30	96	5	2	-	-

Number of people responding 0001-0700 hrs. in 2017

0-5	6-11	12-14	15-19	20-24	25+
22	19	-	-	-	-

My review indicated that there was a deficient staffing situation for the majority of responses during the year. Particularly troubling were responses where it was stated on the report that there were multiple dispatch tones sent out with a poor staffing response. In one situation, it was noted that there was an actual fire and it took two dispatches of the department before they could get someone on the road. It was only when they finally responded with six people that they were able to request mutual aid assistance. Your fire company will continue to have great difficulty and require the automatic and mutual aid you currently use.

**Outside Training**

We strongly recommend that personnel be sent to the following outside training opportunities:

- |  |                              |
|--|------------------------------|
| 1. Fire Department Instructors Conference              | Indianapolis                 |
| 2. Firehouse Expo                                      | Nashville                    |
| 3. International Association of Fire Chiefs Conference | Different locations annually |
| 4. National Fire Academy outreach courses              |                              |
| 5. Monmouth County Fire Academy courses                |                              |
| 6. Middletown Fire Training Academy courses            |                              |

The fire chief indicated to me that he agrees with the need for sending personnel to outside training opportunities in order to be exposed to the latest fire service operational and administrative initiatives.

## **Section 5 – Holmdel Township Municipal Risk Analysis**

As part of our analysis of the Holmdel Fire Company #Two, we reviewed the risk and hazards this agency protects. It is critical to develop an understanding of what a given community demands of its fire department. It is important for me to establish these requirements before we can ascertain whether sufficient fire protection exists in Holmdel Township, or any community.

We reviewed the fire risk potential for those occupancies that we felt met the criteria for being labeled a **Target Hazard**. Long ago, we discovered that the best people to question are the fire personnel who live in a community. During our visits, I asked various fire personnel and fire officers as to their choices for this list of Target Hazards.

A “Target Hazard” is defined as those occupancies that pose an undue risk of life loss, personal injury, or property damage. Hospitals, nursing homes, lumber yards, schools, shopping malls, and garden apartment complexes are some of the more common examples of Target Hazard occupancies.

The Fire Chief played an important part in helping me select the candidates for this list. We then selected those buildings in Holmdel Township that we felt best fit the criteria for being the Target Hazards:

1. Bell Works Complex
2. Nokia Complex
3. Arnold Walters Nursing Home (with dementia center)
4. Care One Nursing Home
5. Holmdel High School/Satz Middle School
6. St. John Vianny School
7. St. Benedict’s Church and School
8. St. Minas Church
9. Bayshore Hospital/Bayshore Healthcare

## 10. The Willows Assisted Living Facility

We looked at each of these occupancies (or groups of occupancies) in terms of the demands they would make on the Holmdel Fire Company #Two and their mutual aid partners. We grouped these demands into two classifications:

1. Potential for initial fire attack flow problems
2. Potential for sustained attack flow problems

**Initial fire attack flow** is the amount of water that must be delivered through department hoses if a fire is to be controlled through an aggressive interior firefighting attack. A 10-minute time frame is allowed for the fire department to perform those tasks necessary to achieve this flow.

**Sustained fire attack flow** is the amount of water that must, hypothetically, be delivered by fire department pumpers to control a fire in the involved occupancy, and limit its spread to surrounding structures. A period of 30 minutes is allowed for in the process to assemble the equipment necessary to supply this flow.

We have learned that there are three limiting factors in the ability of any community to meet the required flow:

1. Number and size of fire department pumper apparatus
2. Firefighters to provide the attack force
3. Available fire flow from the water system

As part of our risk analysis, we assessed local fire department attack capability. We reviewed the apparatus fleet and the staffing response levels to ascertain if sufficient people were available to support the 175 gallons per minute (GPM) required to be delivered from a single 1 $\frac{3}{4}$ " attack hose line. It appeared that under most normal circumstances, the fire department would be able to place a single 1 $\frac{3}{4}$ " hose line into service fairly quickly.

However, the amount of time it might take to stretch and operate a backup hose line may vary by time of day. It is our opinion it might be difficult to provide more than one initial attack line during the daytime. We alluded to this in an earlier section. This is where the use of an array of automatic aid can cut down the lead time for additional operational support at the scene of a fire. Chief David Farrell is working to bring back and strengthen the automatic aid arrangements with their neighboring fire departments. This is necessary to make a larger staffing response available for fire situations. The current mutual aid agreements require someone from the Holmdel Fire Company #Two to arrive at the scene of a fire and initiate the call for aid. This builds in a time factor which may allow for the fire to grow greater than the ability of the on-scene resources to control it.

Like most volunteer fire departments Holmdel Fire Company #Two reported to me that there were staffing issues during the 0500–0700 hrs. and 1500–1700 hrs. time frames. This is normal in most communities, as these are the primary commuting periods. Let me also note that there are large number of members who live and work in other communities. It is important to stress that the 2016 Census data indicated the mean travel time to work for Holmdel Township is 38.2 minutes. This means that many people would be unavailable to respond from their work locations in a timely fashion. It is also important to note that many of the fire company members live in surrounding communities. This in itself adds an additional amount of time to have the fire company apparatus respond.

The results of our assessment indicated the fire department has a minimum potential for delivering an initial daytime attack capability of approximately 175 GPM. As I stated above, Chief Farrell is working on the development of a Box Alarm Response System which will allow for automatic dispatch of mutual aid fire departments to assist in the stretching and placing of additional hose streams. This is critically important to assuring the delivery of an initial fire attack flow.

My review of your local water supply indicated that there are an appropriate number of fire hydrants within useful operating distance of the target hazards. These should be capable of providing an adequate mains indicated that an appropriate flow should be available under normal

operating circumstances. The Insurance Services Office (ISO) Public Protection Classification Summary Report provides support for my position by giving Holmdel Township credit for 36.45 points out of possible 40 points for Water Supply. This is supplemented by credit for 27.24 points out of an available 30 points for supply system; and 3 out of 3 points for hydrant coverage and capacity. They also indicate that Holmdel has received the full 3 points which are available to assess pumper capacity.

Should they be needed, large water supply tanker vehicles are available from mutual aid sources for use in those limited areas where there is no municipal system. Surrounding communities are able to supply mutual aid tankers to back you up through the Monmouth County Tanker Task Force system. To be of greatest assistance, these tankers have to be requested quickly. The Holmdel Fire Company #Two should routinely train with them.

In each **Target Hazard** case, we saw a risk potential that appeared to be in excess of what the fire department can readily deliver. Your department has sufficient pumper equipment. The staffing during the day time hours has a base of volunteer staff which must be supplemented by automatic aid and mutual aid assistance.

Adequate automatic aid forces must be placed on a first-call basis. This would allow for sufficient forces to be available for a fire attack on those occupancies larger than a one-story, single-family residential occupancy. But the key to this requires you to reinstitute your automatic aid program. Help must be moving at the same time as your fire company.

This will quickly muster a force capable of handling incidents in your larger structures. This means the basic initial attack capability of the local fire department should be expected to supply in the vicinity of 175 GPM. We must add a word of caution at this point. The department can flow this amount of water, provided a sufficient number of personnel are immediately available to deploy the attack and supply hose lines. An increased reliance should be placed on mutual aid support to augment the initial attack force. It is this added force which will allow for the deployment of addition back up and attack hose line.

It is, therefore, extremely important to recognize the value of installed, automatic fire suppression in your community. Given the lack of appropriate New Jersey automatic sprinkler protection laws, some of the newer, larger occupancies in Holmdel may not have automatic fire sprinkler systems. These are devices would can sound the alarm and begin to suppress the fire at the same time your fire department receives notification of an incident. These devices would work to limit your exposure to large fires. Sadly, such devices are not mandated in many types of buildings in New Jersey.

The **Sustained Fire Attack Flow** requirements are reviewed in a slightly different manner. Our research indicated sufficient numbers of apparatus are available within a 30-minute radius of Holmdel Township to supply the added pumping capability to support the necessary flows.

The variable in each of these cases will be water supply availability. The best way to determine Sustained Fire Attack Flow delivery capability would be to conduct a major area-wide drill. Only in this way can they fully utilize the municipal water supply system through the use of the mutual aid delivery system. It would be worthwhile to schedule such a drill; however, it would take the time and cooperation of a great many people from a number of different fire departments in neighboring communities.

For this reason, we usually perform a theoretical study of the available pumping capacity in a region and then factor in the available water supply in the area. This is a sufficient measure for our planning and research purposes. It has been our experience that the limiting factor in communities such as Holmdel Township is the water supply system. Given the spacing of fire hydrants in your community and the size of the water mains, this should not be a negative impact. You have an excellent hydrant coverage as recognized by the Insurance Services Office (ISO).

We would urge your community to monitor the efforts of the New Jersey American Water Company to maintain and service your water mains and hydrants. My discussions with the fire chief indicate that your people know the water system and how to supplement it. This is

good. You also need to become proficient in operating within the available county tanker task force environment. We know this from many years of firsthand experience.

Your pumping capacity is sufficient for most standard fire scenarios. The water system should be maintained, and upgraded wherever possible. Improvements in the water supply system will lead to improvements in the sustained attack flow capability.

In our opinion, your fire department should prove capable of handling most fire scenarios in your community. Your exposure to risk can be lowered in the following ways:

1. Create a Box Alarm Response System to assist in the rapid deployment of these external resources.
2. Insure that all parties to your current mutual aid agreement are aware of the requirements for participation.
3. You need to drill to improve your ability to deploy 1-3/4"; 2-1/2"; and 3" attack hose lines.
4. The township should work to increase the size of the volunteer force.
5. Let me suggest that if the effort to increase the volunteer force is not successful, then you may have to consider creating a full-time career firefighting staff.

## **Section Six - Potential Incidents Which Might Occur in Holmdel Township**

In order for me to properly assess the hazards which need to be protected in any community, I must understand which types of incidents have the potential to occur in that place. We can study the community, and the hazards to be protected. But to truly serve the needs of the client, we must assess the potential for those emergency events which a given community might experience.

There are a variety of emergencies that can occur. They come in a wide range, and every community in the United States must face the fact that they could encounter any one of them on a given day (or night). When conducting future-related emergency services planning, these considerations must be factored in. A failure to give them due consideration will limit your ability to respond and diminish your overall protection. A failure to do so can preclude you from taking appropriate steps to meet the potential dangers. Most importantly, you shortchange the people who are expecting you to be there for them when things start to go bad.

It is most fortunate indeed that the Holmdel Fire Company #Two has adopted a pro-active approach to planning for those potential incidents which could occur in the future. This came through during my interviews with the fire chief and members of the fire company. My comments here are meant to broaden and deepen the efforts of the fire department to protect their community. There are a number of things which can have an impact on emergency events which may occur in your community

- population
- geography and topography
- demographics
- transportation mediums
- level of industrial development

- level of residential development
- level of commercial development
- construction type
- available water supply

Let us look at each of these.

1. Based upon our interview findings, your population continues to grow. This means that the demand for fire protection services will continue to grow in your community. The changes in the population mix may pose further problems for your fire company. The nature of the people moving in will have a definite impact upon your fire company's ability to recruit new volunteer members.
2. As vacant land becomes scarce, areas previously undeveloped may begin to blossom forth with more housing and more people. You need to closely monitor this situation.
3. Your road network allows for apparatus movement throughout the community. Some of the roads may limit the speed of the response to emergencies.
4. People need the assistance of the fire department in order to understand the unique safety skills of living in a suburban setting.
5. Each of the following transportation mediums were observed during our visits. They are:
  - a. Local roads and state highways
  - b. The Garden State Parkway
  - c. The New Jersey Transit Rail Line
  - d. Aircraft over head
  - e. Heavy truck traffic on the roads in the area

The impact of the transport mechanisms must be an important part of your planning for future emergency service needs.

6. Residential development will continue to increase. This will cause the number of fire responses to increase as well. More people and more homes always equates to an increased demand for service.
7. It would appear that mercantile, commercial and industrial development still has room to grow in your community.
8. I noted that a number of age-restricted communities have been built as well as assisted-living and nursing home facilities. You also have a dementia facility with its special challenges. These two types of occupancies can easily be tied together on a population/needs basis.
9. It is critical to note that all of the new construction is of the modern variety. This creates structural integrity problems, as standards have been diminished by the new building code minimums. This problem can be partially attenuated through an increased emphasis on installed alarms, and automatic suppression devices, within the limits of New Jersey Fire Codes.

After giving each of these criteria a due level of review and concern, I would offer the following issues for your guidance. We believe there to be five basic scenarios which are important enough to merit additional thought on the part of the leaders in the Holmdel Township Fire Company #Two:

- A major residential fire
- A major fire in a health care or commercial facility.
- An aircraft crash
- A major transportation/haz-mat accident
- A large-scale, multiple-casualty emergency medical response.

In spite of a the potential for possible daytime staffing shortfalls, the fire department in Holmdel Township appears to have the capabilities necessary for handling a residential structural fire scenario in single family homes. I say this based upon the mutual aid resources which are available. The same holds true for the

larger multi-family connected units found in a number of condominium and townhouse developments. Let me state that this capability is contingent upon the ability of the department to muster sufficient staff to use the available equipment, as supplemented by the response of mutual aid fire departments.

Let me suggest that all fire departments are subject to the same potential staffing problems during the daytime timeframe. I would suggest to you that my many discussions have led me to note that that Holmdel Township has a number of mutual aid fire agencies in close proximity. The availability of automatic aid responses on a 24/7 basis greatly enhances your service delivery capabilities. This improves the overall response and impacts the risk level of the community which I identified in a positive manner.

The **Fire Protection Handbook 20<sup>th</sup> ed.**, suggests that a volunteer fire department may be reasonably expected to arrive at the scene of an incident within 12 minutes of its discovery. This allows for a turnout time of six minutes and a variable response of approximately six minutes. It has been our observation that this time specification usually falls within the 1.5 mile pumper response requirement of the Insurance Services Office (ISO).

As the turnout time increases, or the response time increases, so does the total on scene time. This is a given, when dealing from a fixed set of fire facilities. While these stand as recommendations, rather than mandates, they could be granted standing in any legal action which might be taken against the fire department, owing to an adverse tactical response and deployment scenario.

My support for this response level and all derivative comparisons comes from both textual references and decades of personal experience. The support available from surrounding communities varies by the time of day, as supplemented by operations ongoing in their jurisdictions at any given time. Just getting a certain number of people to the scene of a fire is not enough. They must be able to respond and deploy in a timely

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manner. Further, they must be trained to a common standard which will permit them to blend smoothly into any operation. They must be able to work together.

As I stated above, your use of mutual aid and automatic aid must be periodically reviewed. The fire chief assured me that this is being done. This will provide an adequate first alarm response for the community as a whole, as specified in **National Fire Protection Association** recommendations. In general, we are referring to the response of 12 fire personnel under the command of a designated incident commander (chief officer), operating a force of two engine companies, and one truck company. It is now recommended that this force be supplemented by a safety officer and a Rapid Intervention Team of 5-6 members. This calls for a total of 19-20 personnel. Your response records indicate that you will need mutual aid assistance to equal or surpass this staffing level.

A review of your hazardous materials response capability suggests that you are capable of securing a small spill and leak with assistance from other agencies in Monmouth County. You should insure that a system is in place which allows for the immediate dispatch of support personnel on a mutual aid basis from Naval Weapons Station Earle and the Monmouth County Hazardous Materials Response Team in Freehold. These resources should be reviewed, maintained and enhanced if possible.

Unfortunately, major road and air transport incidents are not out of the question. I would urge the fire department to maintain their relationships with other rescue and EMS agencies, as currently constituted. The ability currently exists to handle such possibilities as a small propane leak or a minor gasoline spill. However, many toxic materials pass through your community which could sorely tax the ability of even so dedicated a group as yours. You need to develop a plan to handle such incidents. Use of mutual aid and county resources is the best route to take.

As our next recommendation, we would suggest that an aircraft crash might occur anywhere in the populous northern areas of a densely populated state such as the one in

which we live all live. Several steps could be undertaken which can help to improve Holmdel Township's capability in this area of firefighting and EMS response.

Training should be undertaken to develop an understanding of what to expect in the event of a plane crash. Your fire department should continue work as an integral part of the existing Monmouth County efforts which provide a stock of firefighting foam. You have a certain amount of foam capabilities in house. Please bear in mind that this effort should include the following types of foam products:

- a. Class A foam
- b. Class B foam
- c. Polar solvent foam owing to the amount of alcohol in the current gasoline blends

Equipment availability and product location are a part of your preplanning considerations for this type of emergency. These facts are known ahead of time so that they can be deployed quickly and effectively in time of crisis.

Given the number of vehicles passing through your township on the local, county and state roadways, the potential exists for a major, multiple-casualty emergency medical incident. You have experienced a great many large-scale motor vehicle incidents on the Garden State Parkway. In such a scenario, the forces of many different communities have to be marshaled under the operational control of an EMS commander. Your long-standing working relationships developed with your local EMS unit stands you in good stead to participate successfully in such a major undertaking. It should be expected that surrounding communities would also provide the appropriate mutual aid EMS backup to support such a large-scale operation.

These matters are in place and working and should be reviewed periodically as a part of your everyday operations. Determination of roles and responsibilities and the development of operations coordination are critical, on-going activities.

My interviews indicate that The Holmdel Fire Company #Two has fully embraced the tenets of the Incident Management System (IMS). Large- scale, multiple-agency, multiple Jurisdictional emergencies will flow more smoothly, if people are familiar with IMS. This emphasis is most appropriate for command and control in EMS as well as fire and hazardous materials incidents. IMS drills should be provided at both the local and regional levels. This will allow for a smoother implementation when IMS is needed. Let me suggest that it should be used routinely on a daily basis. The Insurance Services Office (ISO) has noted this by giving the fire company full credit for its IMS efforts.

It is the on-going joint training of all involved agencies in a community that leads to success in the delivery of emergency services during a time of crisis. The key to success in any emergency is quite simple. You must continue to apply equal parts knowledge, planning, and training. It is in the acquisition of these attributes where frequent short falls occur. The means of preparation are simple and straightforward:

1. Know what might happen.
2. Acquire the skills to deal with these potential emergencies.
- 3 Drill on them as a group
4. Review and revise your plans periodically.

Based upon my interviews with the officers and members of the fire department, it would appear that there is a need to create additional training opportunities in the following areas:

1. Hazardous materials operations
2. Flammable and combustible liquid incidents
3. Chemical incidents

You need to remember that training for things which may happen at some future time is just as important as training for those events you see on a daily basis. They might

even be more important owing to the fact that you do not see them as often. If you do not train on these special operations, you may be subjected to an unwanted surprise at the wrong time. If you do all of these things, you should be successful. And in the emergency service world, success translates into lives saved.

## **Section Seven – Fire Apparatus Review and Recommendations**

In this section, we will list the results of the apparatus inspections that were performed by our apparatus associate, Mr. Ted Lowden of Lopez, Pennsylvania. His review of the existing fleet was thorough, and his recommendations are sound. In addition, he completed a review of the specifications for a pumper apparatus that your board requested. In that case, I reviewed his findings and concur with his comments and recommendations.

Our review of the Insurance Services Office (ISO) grading report indicated that they recommend continuing to have a fleet with three pumpers and an aerial device. They also noted the importance of the mutual aid which is a part of your operational scheme. I would agree that you need to maintain the pumping capacity to provide the 3,500 GPM in the ISO grading report. That is what I am recommending.

During my discussions with Chief Farrell, he asked me to consider suggesting the acquisition of a smaller pumper unit, mounted on a chassis on the order of a Ford 550 or a similar chassis. The unit would have a water tank with a 300-500 gallons capacity and a pump size of 500 GPM. It would have a compliment of attack and supply hose lines. It would be for use on those homes which had steep and narrow drive ways.

You will find the apparatus replacement schedule located at the end of this section. There will also be certain fleet adjustment recommendations. It is our opinion that your fleet needs to make some changes to its mix of vehicles. We have made a number of recommendations to assist you with this.

# Holmdel Township Engine Inspection Report



Location - Substation

Radio ID – 18-75

Make -International / E-One

Year of Manufacturer – 1992

Mileage – 8022

Registered Owner – Holmdel Township

VIN –

1HTSDCR4NH438046

Engine - Diesel

Crew Size – Four (4)

Pump Size – Hale 1250 gpm

Tank

Size – 750 gal

Ladder Compliment – 14- foot roof and 24- foot extension ladders Generator – Yes

Hose Compliment – Undetermined/non-complete, there was no method for determining total lengths and our firefighter detailed as our guide did not have the information

## Notations

### **Condition Reported as Good**

Exposed vehicle wiring was noted on the cab floor of the apparatus

Gasoline cans of the non-safety type were noted

A variety of “standard” equipment was missing, indicating this unit is in reserve status?

Broken exhaust bracket located on right side midships of the apparatus

A missing battery compartment closure cause the door to be insecure

There is an open wiring butt connector on the right rear underside of the chassis

The front left bumper return of the unit’s bumper is cracked

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January 2019

## Holmdel Township Engine Inspection Report



Location - Substation

Radio ID – 18-78

Make - Smeal

Year of Manufacturer – 2002

Mileage – 5116

Registered Owner – Holmdel Township

VIN – 44KFT4280WZ19857

Engine - Diesel

Crew Size – Eight (8)

Pump Size – Hale 1750 gpm

Tank

Size – 750 gal

Ladder Compliment – 14- foot roof and 24- foot extension ladders Generator – Yes with light tower device  
Hose Compliment – 1000-ft of 5.0” supply line; 700-ft of 3.0” hose; three, 200-ft 1.75” pre-connects; one 200-ft 2.5” pre-connect; 200-ft of 1.75” dead load and 100-ft of 1.75” pre-connect on front bumper

### Notations

#### **Condition Reported as Good**

- Equipped with on spot snow chains
- Un-Captivated equipment in the cab and on side of apparatus
- Hand lights do not work on the apparatus
- Inside dual tires on both sides of apparatus will soon need to be replaced
- There are seven (7) SCBA in service on this unit and only six (6) replacement bottles on the apparatus
- Unit carries 20 gallons each of class “A” and “B” foam

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January 2019

## Holmdel Township Engine Inspection Report



Location – Headquarters Station

Radio ID – 18-80

Make – E-One

Year of Manufacturer – 2009

Mileage – 3482

Registered Owner – Holmdel Township

VIN – 4EN3AAA8591005402

Engine – Diesel

Crew Size – Five (5)

Pump Size – Hale 2000 gpm  
1000 gallon

Tank Size –

Ladder Compliment – 14- foot roof; 24- foot extension; 10- foot attic ladder and a Little Giant Ladder Generator – Yes

Hose Compliment - 1200-ft of 5.0" supply hose; 800-ft of 3.0" hose; 200-ft of 2.5" extended line hose; 150-ft of 1.75" extended line; 100-ft of 1.75" bumper line; one 200-ft 2.5" pre-connect and two 200-ft 1.75in pre-connects

### Notations

#### **Condition Reported as Very Good**

- Non-safety type gasoline cans are in use on the apparatus
- Unrestrained items in the cab and on the exterior of apparatus
- This unit is equipped with both a stokes basket and a hydraulic rescue set
- The right-side cribbing compartment does not open
- There is a broken fire extinguisher bracket at the right rear of apparatus
- There is physical damage to the right lower cribbing box.
- The left rear mud flap is hanging off, the right rear mud flap is missing

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January 2019

## Holmdel Township Aerial Ladder Inspection Report



Location – Headquarters Station

Radio ID – 18-90

Make – Smeal/HME

Year of Manufacturer – 2002

Mileage – 3,697

Registered Owner – Holmdel Township

VIN – 44KFT64832WZ19859

Engine - Diesel

Crew Size – Seven (7)

Pump & Size – Hale 2000 gpm

Tank Size – 500 gal

Ladder Compliment – 100-foot aerial platform; a 35-ft extension ladder; two 16-ft roof ladders; one 24-ft extension ladder; a 14-ft Fresno ladder and a 10-ft attic ladder Generator – Yes

Hose Compliment – 1000-ft of 5.0” supply hose; two 1.75” pre-connects at 200-ft each; one 2.5” pre-connect at 200-ft, one 1.75” pre-connect at 100-ft in length; 200-ft of dead load 3.0” line

### Notations

#### **Condition Reported as Very Good.**

- Unit is equipped with On-Spot snow chains
- There is damage to the right rear corner of the apparatus body from an apparent previous accident
- Non-safety type gasoline cans are in use on the apparatus
- Metal pike poles on both sides of the exterior of the apparatus should be mounted by means of a device that locks positively
- The right rear stabilizer dress panel is loose
- There is a leaking hydraulic hose/fitting under the apparatus turn table
- There are corroded hydraulic lines and associated equipment on the underside of the apparatus.

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January 2019

### Apparatus Replacement Schedule

	<u>Refurbish</u>	<u>Replace</u>
Engine 18-75	----	2019
Engine 18-78	2019	2027
Engine 18-80	2024	2034
Aerial 18-90	Replace as soon as possible due to the condition of vehicle	

During my discussions with Chief Farrell, he asked me to consider suggesting the acquisition of a smaller pumper unit, mounted on a chassis on the order of a Ford 550 or a similar chassis. The unit would have a water tank with a 300-500 gallons capacity and a pump size of 500 GPM. It would have a compliment of attack and supply hose lines. It would be for use on those homes which had steep and narrow drive ways.

Let me recommend that Engine 18-75 by a similarly equipped pumper. I would recommend a custom pumper because it is safer for the crew it will carry. The fleet changes I am recommending would allow you to still have three units with pumping capacity as required by the Insurance Services Office (ISO).

The other recommendations stand as presented.

## **Section Eight – Holmdel Township Fire Company #Two Recommendations**

### **Organizational Recommendations**

1. Let me recommend that the township government, and the fire company, make a concerted effort in the next year to locate and identify people who might be candidates to join the Holmdel Fire Company #Two.
2. Should this effort prove successful, it may forestall the need to hire a career staff. If that effort does not succeed, let me suggest that it would then be appropriate and proper for the Holmdel Township Committee to consider the creation of a career staff to assist the existing volunteer staff in the delivery of services.
3. A review of all operation rules, regulations and operational guidelines should be conducted which will allow all to be brought to a common level for the newly-created combination fire department.
4. I have provided a set of proposed Standard Operating Guidelines for you to consider adopting. They are in the appendix at the end of this report.
5. The training program for the fire company should be reviewed to insure that it has a sufficient range of topics and skills which meet the requirements of the National Fire Protection Association (NFPA) standards.
6. Training should be broadened to include periodic drill sessions with mutual aid and automatic aid fire agencies. These should include tanker drills and sustained attack fire flow drills.
7. The training program should include periodic training sessions with the specialized hazmat and specialized rescue equipment from the Naval Weapons Station Earle fire department.
8. Training and educational requirements should be established as prerequisites for promotion within the fire department. This should apply to both career and volunteer positions. In addition, it should be a fire department goal to have every member trained and qualified at the Firefighter 1 level.

9. The department should work to properly establish a duty crew operation. This will require to development of a properly equipped space within the new station I am recommending which can be comfortably utilized by the people when they are on duty supplementing the career staff.
10. I would recommend that a team-building session be held involving all members of the newly-created fire department; career and volunteer. Overtime funding should be provided so that all career staff can attend. An outside facilitator should be brought in to conduct this meeting. The objective is to get all of the members on the same page with regard to how the department will operate. I suggest that this is critical to your future success.
11. This meeting can help you with the issues which I identified during my organizational interviews. This meeting could also address the issues which many members brought forward. This is critical.
12. I would recommend that all members be made aware of the nature of the financial arrangements which the fire company (and thus the new combination fire department) has with Holmdel Township. This can be done as a fire company training session or as a part of the facilitated meeting I am recommending.
13. I would recommend that the fire department conduct research in order to select a new data collection program which could be used by the newly-created, combination department which I am recommending.
14. My research indicates that the area protected by the Holmdel Fire Company #Two is not conducive to providing a force of volunteer firefighters from within the population. I based this upon the demographic criteria, as supplemented by my decades of consulting experience. It is for this reason that I recommend the township make a concerted effort to assist the Holmdel Fire Company #Two in recruiting volunteers.

## **Station Recommendations**

1. The existing station on North Centerville Road is not centrally located within the township.
2. The station of Crawford's Corner Road at the Municipal Complex is centrally located which will allow for timely responses to the entire township.
3. The former Holmdel Fire Company #One station located in the Holmdel Village area of the township was not centrally located owing to its location close to the Colts Neck Township and the Marlboro Township borders.
4. I have based this recommendation on the information provided to me by the Fire Chief.
5. I would recommend that consideration be given to developing the Crawford's Corner substation into your new centrally-located fire station. It would allow timely access to all areas of the township. The new station should be provided with sufficient storage space to alleviate the current problems with a lack of adequate storage space in each existing station.
6. The new station should be provided with sufficient storage space to alleviate the current problems with a lack of adequate storage space in each existing station.
7. It should also have the following:
  - A properly sized meeting room
  - a. Sufficient space for the fire company's apparatus
  - b. A kitchen area
  - c. Proper restrooms with shower facilities for both sexes
  - d. Sufficient storage space for the fire company's hose and equipment so that nothing will need to be stored outside of the station

## **Apparatus Recommendations**

1. I would recommend that a standard apparatus preventive maintenance program be created which monitors the mechanical condition of the apparatus on a daily basis.

2. I would recommend that an apparatus and equipment acquisitions committee be formed. This committee should operate under the rules and guidelines of the township acquisitions process in order to provide guidance to the Fire Chief.
3. I would recommend that the apparatus replacement schedule which I have presented in Section 7 be implemented immediately.
4. I would recommend that the new mid-sized unit I am recommending be acquired within the next year.

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# Appendix

## Standard Operating Guidelines